

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s) : James Allen Strothmann

Serial No. : 09/603,339

Filed : 6/26/00

Title : Method and apparatus for using DVD sub-picture information in a television

Examiner : Annan Q. Shang

Art Unit : 2623

Reply To Examiner's Answer

MS Appeal Brief -- Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Response to Examiner's Answer is filed within one (2) months after the mailing of an Examiner's Answer mailed on November 12, 2008.

This Response contains items under the following headings:

I. Real Party in Interest
II. Related Appeals and Interferences
III. Status of Claims
IV. Status of Amendments
V. Summary of Claimed Subject Matter
VI. Grounds of Rejection to Be Reviewed on Appeal
VII. Argument
Appendix A Claims
Appendix B Evidence
Appendix C Related Proceedings

I. REAL PARTY IN INTEREST

The real party in interest for the appeal is:

Thompson Licensing, LLC

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in the Application

There are 16 claims pending in the application.

B. Current Status of Claims

1. Claims canceled: 4, 7, 8, 18
2. Claims withdrawn from consideration but not canceled: N/A
3. Claims pending: 1-3, 5, 6, 9-17, 19 and 20
4. Claims allowed: N/A
5. Claims rejected: 1-3, 5, 6, 9-17, 19 and 20

C. Claims on Appeal

The claims on appeal are Claims 1-3, 5, 6, 9-17, 19 and 20. A listing of the claims on appeal is attached as Appendix A.

IV. STATUS OF AMENDMENTS

The Status of Amendments was presented in the Amended Appeal Brief filed on July 28, 2008, and acknowledged to be correct in the Examiner's Answer dated November 12, 2008. Accordingly, it is omitted here for brevity.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The Summary of Claimed Subject Matter was presented in the Amended Appeal Brief filed on July 28, 2008, and acknowledged to be correct in the Examiner's Answer dated November 12, 2008. Accordingly, it is omitted here for brevity

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-3, 5, 6, 9-11, 14-17 and 19-20, of which claims 1, 10 and 19 are independent, are unpatentable as being obvious under 35 USC §103(a) over United States patent 6,580,870 to Kanazawa et al. (*hereinafter* Kanazawa) in view of United States patent 6,678,006 to Velez et al. (*hereinafter* Velez) and in further view of United States patent 6,370,323 to Adolph et al. (*hereinafter* Adolf); and

Whether claims 12 and 13 are unpatentable as being obvious under 35 USC §103(a) over Kanazawa in view of Velez in further view of Adolf and in further view of United States patent 6,344,836 to Suzuki (*hereinafter* Suzuki).

VII. Argument

A. Claim 1

Claim 1 is not anticipated or rendered obvious by the combination Kanazawa, Velez and Adolf. Claim 1 of the application recites:

A method for providing graphics display, comprising the steps of:
receiving a bitstream including an MPEG compliant program bitstream and a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream;
extracting and decoding the MPEG compliant program bitstream to generate a program image signal;
extracting and decoding the DVD subpicture compliant bitstream to generate a graphic image signal; and
combining the program image signal and the graphic image signal to provide an output display signal, wherein the DVD subpicture compliant bitstream comprises an interactive graphic having selectable regions that, when

selected, causes the display of other DVD subpicture graphics associated with said subpicture compliant bitstream. Emphasis added.

Kanazawa, Velez and Adolf, whether taken alone or in combination, fail to teach or suggest the features of claim 1 including "wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream".

1. The Examiner's Reply Has Not Addressed Applicant's Arguments

In responding to Applicant's Appeal Brief, the Patent Office states that "Appellant's traversal of the combination of references is primarily from Appellant [sic] mischaracterization of the primary reference Kanazawa." Examiner's Response, Page 8, lines 6-7. Applicant respectfully disagrees.

On page 6 of the Appeal Brief, Appellant recites the subject claim and provides a brief (one paragraph) summary. Thereafter, all of pages 7 and 8 are devoted to showing that the Velez reference does not teach or suggest the features for which it is offered, and to demonstrating that without such a teaching, there are no proper grounds for rejection. The Examiner's Response completely ignores this argument, concentrating on the Kanazawa reference and offering only conclusory statements as to the Velez reference. Page 9, lines 10-14.

2. The Velez Reference Does Not Teach That for Which It Is Offered.

The Patent Office has conceded that Kanazawa does not teach or suggest "a method for providing a graphic display comprising... receiving a bitstream ... said bitstream including... a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream," (emphasis added). The Patent Office relies on Velez in an attempt to remedy this acknowledged deficiency. To the practitioner of ordinary skill in the art, however, Velez does not teach or suggest that for which it is offered.

The Deere factors provide an objective analysis for applying 35 USC §103:
"[T]he scope and content of the prior art are ...determined; differences between the prior

art and the claims at issue are ...ascertained; and the level of ordinary skill in the pertinent art are resolved. Graham v. John Deere Co of Kansas City, 383 U.S. 1, 17-18.

a. Scope and Content of the Prior Art

As to the scope and content of the prior art, the Patent Office has identified the prior art to include Kanazawa and Velez. In making the present rejection, the Patent Office appears to be relying on the portion of Velez which reads:

As is known, the run-length encoded data is encoded based on patterns of compressed data (e.g., 2 bit/pixel DVD encoded subpicture data) and how often they repeat. As such, run-length encoding of the DVD subpicture data is done in two steps, the first encodes pixel information into 2 bits/pixel compressed data and the second encodes the compressed data based on how many times it [i.e., the 2 bits/pixel] repeats in a given block (e.g., a frame, a field, a plurality of frames or fields). Emphasis added. Column 3, lines 48-58.

b. Differences between the Subject Claim and the Prior Art (a Bit is not a Bitstream).

As to differences between the subject claim and the prior art, the Velez reference reads "encodes the compressed data based on how many times it [i.e., the 2 bits/pixel] repeats in a given block" (emphasis added). To one of ordinary skill in the art, this is completely different from the claimed features of "receiving a bitstream ... including... a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated" (emphasis added).

The ordinary meaning of a term must be considered in view of the intrinsic evidence: the claims, the specification, and the prosecution history. Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342-43 (Fed. Cir. 2001). Thus, we look to the specification "to ascertain the meaning of a claim term as it is used by the inventor in the context of the entirety of his invention." Comark Communications v. Harris Corp., 156 F.3d 1182, 1187 (Fed. Cir. 1998).

Read in light of the specification, the claim language "wherein a portion of the DVD subpicture compliant bitstream is repeated" clearly means that the bitstream is actively repeated. **Even given its broadest possible construction**, there is nothing in Velez to suggest that a "bitstream," according to Velez "is repeated" in this sense. As will be discussed below in additional detail, any duplication of the "data" of Velez is passive, and is intrinsic in the underlying data represented.

One of ordinary skill in the art would understand that binary information consists exclusively of ones and zeros. Any string of more than 2 binary digits (bits) must, by definition, include duplication. Such a string must have more than one "one" bit or more than one "zero" bit. To say that a bitstream is repeated merely because it contains more than one "one" bit or more than one "zero" bit is facially absurd. Repetition of a bitstream is not the same as repetition of a bit. Yet this the substantial conclusion of the erroneous line of reasoning offered by the Patent Office.

c. Level of Ordinary Skill in the Art

As to the level of ordinary skill in the art, it is implicit in the citation of Velez by the Patent Office that one of ordinary skill in the art should be able to understand the Velez reference. The pertinent portion of Velez refers to run-length encoding. Thus, one of ordinary skill in the art should be one who understands what "run-length encoding" means. Any ordinarily skilled practitioner knows that:

In many kinds of data, strings of repeated symbols (bits, numbers, etc.) are common. These can be replaced by a special marker not otherwise allowed in the data, followed by the symbol comprising the run, followed by how many times it occurred.... [f]or example, consider the following string of decimal digits:

31500000000000845871111111111116354674000000000000000000065

if we now introduce A as the marker and use two-digit numbers for the repetition count, we can encode the above digit string as

315A01284587A11316354674A02265

here run-length encoding has cut the data string in half.

In view of this discussion, one of skill in the art would understand that Velez is referring to using run-length encoding to remove pre-existing intrinsic repetition of bits from a bitstream. To the skilled practitioner, this is completely different from, and in no way suggests, a "bitstream...repeated", as claimed. A bit is not a bitstream and, even given the broadest possible construction, "data ... [that] repeats" is not a "bitstream...repeated," because the Velez reference does not imply any active repetition.

The repetition of Velez does not add any repetition of a bitstream (the bitstream is not "repeated"). Velez merely removes and recovers duplication of data bits that intrinsically exists. Applicant respectfully submits that, to one of ordinary skill in the art, the mere mention by Velez of "data" and "repeats" no more teaches the claimed features of the invention than the word "wheel" alone teaches an automobile.

Accordingly, Applicant respectfully submits that, to the properly characterized practitioner of ordinary skill in the art, the Velez reference does not in any way teach or suggest the claimed features of the invention, which features, the Patent Office has conceded, are not taught anywhere else in the references now of record. Specifically, Velez does not teach or suggest "a method for providing a graphic display comprising... receiving a bitstream ... said bitstream including... a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream."

Consequently, claim 1 is entirely distinguishable from the references now of record, whether they are taken alone or in combination and the pending rejection of claim 1 under 35 USC §103(a) over Kanazawa in view of Velez and in further view of Adolf should be withdrawn.

B. Claim 10

Claim 10 is not anticipated or rendered obvious by the combination Kanazawa,

Velez and Adolf.

Claim 10 recites:

A video signal processing apparatus, comprising:
means for receiving a bitstream comprising an MPEG compliant program bitstream and a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream;
means for parsing the received bitstream, and routing the MPEG compliant program bitstream to a MPEG decoder, and routing the DVD subpicture compliant bitstream to a DVD subpicture processor, the MPEG decoder generating a program image signal in response to the MPEG compliant program bitstream, the DVD subpicture processor generating a graphic image signal in response to the DVD subpicture compliant bitstream;
means for combining the program image signal and the graphic image signal to provide an output image signal; and
a display processor coupled to the combining means for displaying said output image, wherein the DVD subpicture compliant bitstream comprises an interactive graphic having selectable regions that, when selected, causes the display of other DVD subpicture graphics associated with said subpicture compliant bitstream. Emphasis added.

In light of the discussion provided above as to claim 1, the rejection of independent claim 10 should also be withdrawn. Claim 10 recites, in pertinent part, "means for receiving a bitstream comprising an MPEG compliant program bitstream and a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream," (emphasis added). It is clear on inspection that the features of claim 10 emphasized above correspond to those which have been shown in this paper to be absent from the references of record. As demonstrated above, the proposed combination of Kanazawa, Velez and Adolf, whether taken alone or in combination, do not teach or suggest a "bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream." Accordingly, for at least the reasons given above in relation to claim 1, the rejection of claim 10 under 35 USC §103(a) over Kanazawa in view of Velez and in further view of Adolf should be withdrawn.

C. Claim 19

Claim 19 is not anticipated or rendered obvious by the combination Kanazawa, Velez and Adolf. Claim 19 recites:

A method for providing graphics display comprising the steps of:
receiving a bitstream from a remote signal source, said bitstream including an MPEG compliant program bitstream and a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream;
extracting and decoding the MPEG compliant program bitstream to generate a program image signal;
extracting and decoding the DVD subpicture compliant bitstream to generate a graphic image signal; and
combining the program image signal and the graphic image signal to provide an output display signal, wherein the DVD subpicture compliant bitstream comprises an interactive graphic having selectable regions that, when selected, causes the display of other DVD subpicture graphics associated with said subpicture compliant bitstream. Emphasis added.

The rejection of independent claim 19 should also be withdrawn. Claim 19 recites, in pertinent part, "a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream," (emphasis added). It is clear, in light of the foregoing, that at least these features of claim 19 are not taught or suggested by the proposed combination of Kanazawa with Velez and Adolf. Accordingly, for at least the reasons given above in relation to claim 1, the rejection of claim 19 under 35 USC §103(a) over Kanazawa in view of Velez and in further view of Adolf should be withdrawn.

D. Claims 12 and 13

Claims 12 and 13 of the application are not rendered obvious by the combination of Kanazawa in further view of Velez and in further view of Adolf and in still further view of Suzuki.

Suzuki relates to an "information routing system [that] as one system device and a plurality of displays connected to the system device by a general-purpose serial interface [wherein] [d]rawing data is transmitted through the General-purpose serial interface to

the displays... so that different information is displayed on each of the displays."

Abstract.

Claims 12 and 13 incorporate every feature of claim 10 (and those of claim 11) from which they depend. The Suzuki reference is not offered for, and does not teach, "a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream." Accordingly, the rejections of claims 12 and 13 under 35 USC §103(a) over Kanazawa in view of Velez and in further view of Adolf and in still further view of Suzuki should be withdrawn.

E. Further Dependent Claims

Claims 2, 3, 5, 6, 9, 11, 14-17 and 20 each depend, directly or indirectly, from independent claims 1, 10 and 19 respectively and incorporate every feature thereof. Therefore, for at least the reasons given above in relation to claims 1, 10 and 19, the rejection of claims 2, 3, 5, 6, 9, 11, 14-17 and 20 should be withdrawn.

F. Conclusion

For the reasons advanced, claims 1-3, 5, 6, 9-17, 19 and 20 are not anticipated by, or rendered obvious over, the prior art cited in the various rejections of the claims. Accordingly, a reversal of all rejections is respectfully requested.

If the enclosed papers or fees are considered incomplete, the Patent Office is respectfully requested to contact the undersigned collect at (609) 734-6440 in Princeton, New Jersey.

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Appendix A:

Claims Involved in the Appeal of Application Serial No. 09/603,339

1. A method for providing graphics display, comprising the steps of:
receiving a bitstream including an MPEG compliant program bitstream and a
DVD subpicture compliant bitstream, wherein a portion of the DVD
subpicture compliant bitstream is repeated in said received bitstream;
extracting and decoding the MPEG compliant program bitstream to generate a
program image signal;
extracting and decoding the DVD subpicture compliant bitstream to generate a
graphic image signal; and
combining the program image signal and the graphic image signal to provide an
output display signal, wherein the DVD subpicture compliant bitstream
comprises an interactive graphic having selectable regions that, when
selected, causes the display of other DVD subpicture graphics associated
with said subpicture compliant bitstream.
2. The method of claim 1, wherein the received bitstream comprises a plurality
of DVD subpicture compliant bitstreams, and the plurality of DVD
subpicture compliant bitstreams are extracted and decoded to generate a
plurality of graphic image signals.
3. The method of claim 2, wherein at least one of the decoded DVD
subpicture compliant bitstreams is buffered.
5. The method of claim 1, wherein the DVD subpicture compliant
bitstream comprises an MPEG still image.
6. The method of claim 1, wherein the DVD subpicture compliant bitstream
comprises an interactive program guide.
9. The method of claim 1, wherein the interactive graphic further
comprises a selectable region that, when selected, causes the receiver to
decode a particular MPEG compliant program bitstream.

10. A video signal processing apparatus, comprising:

means for receiving a bitstream comprising an MPEG compliant program bitstream and a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream;

means for parsing the received bitstream, and routing the MPEG compliant program bitstream to a MPEG decoder, and routing the DVD subpicture compliant bitstream to a DVD subpicture processor, the MPEG decoder generating a program image signal in response to the MPEG compliant program bitstream, the DVD subpicture processor generating a graphic image signal in response to the DVD subpicture compliant bitstream;

means for combining the program image signal and the graphic image signal to provide an output image signal; and

a display processor coupled to the combining means for displaying said output image, wherein the DVD subpicture compliant bitstream comprises an interactive graphic having selectable regions that, when selected, causes the display of other DVD subpicture graphics associated with said subpicture compliant bitstream.

11. The apparatus of claim 10, wherein the receiving means comprises a digital interface and a demodulator coupled to the digital interface and the MPEG decoder.
12. The apparatus of claim 11, wherein the digital interface is an IEEE 1394 digital interface.
13. The apparatus of claim 11, wherein said digital interface is a USB digital interface.
14. The apparatus of claim 10, further comprising a frame buffer coupled to the DVD subpicture processor.

15. The apparatus of claim 14, wherein the receiving means receives a bitstream comprising a plurality of DVD subpicture compliant bitstreams, and the DVD subpicture processor decodes the plurality of DVD subpicture compliant bitstreams to generate a plurality of graphic image signals.
16. The apparatus of claim 15, wherein at least one of the graphic image signals is buffered in the frame buffer.
17. The apparatus of claim 10, wherein the display processor is operable for generating an interactive program guide in response to the graphic image signal.
19. A method for providing graphics display comprising the steps of:
receiving a bitstream from a remote signal source, said bitstream including an MPEG compliant program bitstream and a DVD subpicture compliant bitstream, wherein a portion of the DVD subpicture compliant bitstream is repeated in said received bitstream;
extracting and decoding the MPEG compliant program bitstream to generate a program image signal;
extracting and decoding the DVD subpicture compliant bitstream to generate a graphic image signal; and
combining the program image signal and the graphic image signal to provide an output display signal, wherein the DVD subpicture compliant bitstream comprises an interactive graphic having selectable regions that, when selected, causes the display of other DVD subpicture graphics associated with said subpicture compliant bitstream.
20. A method for providing graphics display as defined in claim 19, wherein said bitstream from a remote signal source further comprises at least two MPEG compliant program bitstreams transmitted substantially concurrently by said remote signal source.

Appendix B: Evidence

No evidence pursuant to §§1.130, 1.131, or 1.132 or entered by or relied upon by the Examiner is being submitted.

Appendix C: Related Proceedings

There are no related proceedings.